

# Answers – Whole numbers

**PAGE 1** 1 a Twenty b Eighty-three c Two hundred and forty-three d Seven hundred and eighty e Nine thousand and one f Ten thousand 2 a One thousand, one hundred b Seventy-five thousand, eight hundred c Eight thousand and four d Four thousand, seven hundred and eighty-six e Twenty-one thousand, five hundred and nine f Fifty-seven thousand and eighteen 3 a Three hundred and six thousand, five hundred and forty-three b Two hundred thousand, three hundred and six c Seven hundred thousand and eight d Nine hundred thousand, five hundred e Three thousand, eight hundred and sixty-seven f Twenty thousand, seven hundred and sixty-two 4 a Ninety-three thousand, eight hundred and fifty b Ten thousand, four hundred and ten c Sixty-three thousand, eight hundred d Two million, four hundred thousand, five hundred and thirty-seven e Three hundred and sixty-seven thousand and two f Fifty-three million, two hundred thousand and fifteen

**PAGE 2** 1 a 537 b 801 c 999 d 763 e 2360 f 6075 2 a 7208 b 9509 c 12 369 d 26 535 e 19 008 f 53 640 3 a 63 509 b 42 321 c 33 333 d 90 006 e 305 506 f 103 205 4 a 725 000 b 1 000 000 c 500 000 d 250 000 e 5 700 000 f 9 000 027

**PAGE 3** 1 a 16, 19, 22 b 17, 21, 25 c 30, 37, 44 d 7, 2, -3 e 31, 23, 15 f 24, 21, 18 g 243, 729, 2187 h 10 000, 100 000, 1 000 000 i 32, 64, 128 j 80, 160, 320 k 23, 21, 19 2 a 67, 80, 93 b 100, 50, 25 c 810, 2430, 7290 d 256, 1024, 4096 e 22, 15, 8 f 25, 36, 49 g 125, 216, 343 h 13, 18, 24 i 9, 13, 12 j 24, 12, 6 3 a 80, 40, 20, 10 b 21, 63, 189, 567 c 5, 17, 65, 257 d 125, 25, 5, 1 e 1000, 100, 10, 1 f 10, 30, 110, 430

**PAGE 4** 1 a 14, 17, 20; add 3 b 48, 96, 192; multiply it by 2 c 28, 23, 18; subtract 5 d 50 000, 500 000, 5 000 000; multiply by 10 e 400, 200, 100; divide by 2 2 34, 55, 89; add the preceding 2 numbers to get the third 3 a 3, 4, 5, 6, 7 b 5, 6, 7, 8, 9 c 69, 70, 71, 72, 73 4 a 8, 10, 12, 14, 16 b 30, 32, 34, 36, 38 c 98, 100, 102, 104, 106 5 a 23, 25, 27, 29, 31 b 101, 103, 105, 107, 109 c 999, 1001, 1003, 1005, 1007 6 5, 7, 9

**PAGE 5** 1 a 4; 24, 28, 32 b 7; 38, 45, 52 c 15; 75, 90, 105 d 5; 31, 36, 41 e 0.5; 5.5, 6, 6.5 2 a 2; 8, 6, 4 b 6; 30, 24, 18

c 5; 12, 7, 2 d  $\frac{1}{2}$ ;  $20\frac{1}{2}$ ,  $19\frac{1}{2}$  e 9; 22, 13, 4 3 a 3; 729, 2187, 6561 b 4; 2048, 8192, 32 768 c 5; 3125, 15 625, 78 125

d 2; 320, 640, 1280 e 3; 972, 2916, 8748 4 a 2; 400, 200, 100 b 3; 9, 3, 1 c 10; 10, 1,  $\frac{1}{10}$ , d 2; 16, 8, 4 e 3; 18, 6, 2

**PAGE 6** 1 a 6, 7, 8, 9, 10 b 3, 5, 7, 9, 11 c -2, -1, 0, 1, 2 d 2, 5, 8, 11, 14 e 1, 4, 9, 16, 25 f 5, 10, 15, 20, 25 g 98, 96, 94, 92, 90 h 7, 11, 15, 19, 23 2 a 5, 7, 9, 11 b 1, 7, 13, 19 c 6, 12, 16, 20 d 32, 22, 16, 4 e 4, 14, 24, 34 f 7, 9, 11, 13 g 3, 15, 30, 45 h 0, 3, 8, 15 3 a  $T = 4n$  b  $T = n + 6$  c  $b = 2a + 1$  d  $y = x^2$

**PAGE 7** 1 a  $8000 + 500 + 60 + 2$  b  $9000 + 300 + 50 + 7$  c  $3000 + 200 + 40 + 8$  d  $10\ 000 + 5000 + 300 + 80 + 9$  e  $10\ 000 + 2000 + 400 + 30 + 7$  f  $70\ 000 + 3000 + 400 + 80 + 1$  g  $40\ 000 + 5000 + 200 + 30$  h  $80\ 000 + 1000 + 900 + 6$  i  $30\ 000 + 6000 + 800 + 30 + 4$  j  $90\ 000 + 2000 + 500 + 70 + 8$  k  $800\ 000 + 10\ 000 + 9000 + 500 + 30 + 7$

l  $200\ 000 + 5000 + 600 + 40$  m  $9 \times 1000 + 6 \times 100 + 5 \times 10 + 3 \times 1$  n  $6 \times 1000 + 9 \times 100 + 3 \times 10 + 2 \times 1$  2 a 13 456 b 7564 c 3425 d 18 326 e 235 687 3 a 8765 b 12, 357 c 78 496 d 94 962 e 500 635 f 839 g 9468 h 53 971

**PAGE 8** 1 a 50 b 160 c 570 d 1000 e 1400 f 1200 g 1200 h 2100 i 1900 j 200 k 190 l 160 m 340 n 1000 o 566 p 480 q 500 r 340 s 437 t 434 u 839 2 a 70 b 121 c 95 d 149 e 357 f 732 g 479 h 703 3 a 1716 b 13 649 c 11 137 d 47 412 e 2731 f 77 144 g 192 224 h 937 863

**PAGE 9** 1 a 30 b 50 c 200 d 400 e 700 f 390 g 700 h 1000 i 1100 j 520 k 611 l 750 m 204 n 158 o 409 p 340 q 205 r 351 s 322 t 1410 u 410 2 a 11 b 58 c 207 d 426 e 619 f 429 g 317 h 356 i 109 j 333 k 209 l 4324 3 a 5779 b 1149 c 5342 d 35 312 e 244 310 f 203 315 g 281 321 h 320 135

**PAGE 10** 1 a 56 b 54 c 63 d 81 e 60 f 160 g 250 h 630 i 1200 j 4000 k 2700 l 3200 m 1880 n 4608 o 3264 p 5550 2 a 128 b 380 c 498 d 752 e 512 f 3717 g 7712 h 7515 i 21 810 j 111 251, 51 k 682 568 l 1 216 890 3 a 102 b 522 c 305 d 651 e 9936 f 26 696 g 27 816 h 50 244 i 85 904 j 317 528 k 520 452 l 832 186

**PAGE 11** 1 a 8 b 6 c 8 d 9 e 8 f 8 g 9 h 9 i 13 j 9 k 12 l 14 m 11 n 12 o 125 p 56 2 a 8 b 6 c 9 d 11 e 67

f 109 g 240 h 587 3 a 2 r 1 b 9 r 7 c 16 r 3 d 36 r 2 e 52 r 1 f 46 r 3 g 61 r 1 h 156 r 3 4 a  $40\frac{7}{40}$  b  $40\frac{9}{20}$  c  $90\frac{5}{7}$

d  $92\frac{8}{9}$  e 182 f  $61\frac{13}{14}$  g  $569\frac{5}{9}$  h  $346\frac{1}{24}$

**PAGE 12** 1 a 15 b 29 c 30 d 36 e 108 f 8 g 23 h 42 i 96 2 a 26 b 122 c 103 d 6 e 8 f 49 g 88 h 40 i 72 3 a 35

b 234 c 15 d 45 e 9 f 672 4 a  $(16 + 9) \times 0 = 0$  b  $14 + [(8 - 6) \times 3] = 20$  c  $(15 - 7) \times 9 = 72$  d  $[(144 \div 12) - 7] \times 3 = 15$  e  $(24 + 12) \div (4 + 5) = 4$  f  $72 \div (12 - 3) + 2 = 10$

**PAGE 13** 1 110 m 2 225 kg 3 153 4 512 5 \$11.25 6 4320 7 444 8 20 9 1520 10 399 11 92 12 353 13 900

**PAGE 14** 1 C 2 D 3 B 4 A 5 B 6 A 7 D 8 B 9 B 10 C 11 A 12 B

**PAGE 15** 1 65 609 2 999 3 9575 4 a 1666 b 4348 c 15 950 5 a 120 b 120 6 219 7 25 8 5640 9 2 000 607 10 1775 11 2890 12 1 200 000 13 100 001 14 84 320 15 10 000